

REMARKS

Claims 1-38 are pending. Claim 18 is amended. Claims 29-38 are canceled. Upon entry of the present amendments, claims 1-28 are pending.

Specification

The Examiner has stated that the specification improperly incorporates by reference the subject matter of other U.S. patent applications. It is respectfully submitted however, that the incorporations by reference in the present application are proper per MPEP 608.01(p)(I)(A). Applicants have reviewed all such incorporations by reference made in the application. All of the incorporations are made with respect to issued U.S. patents, published foreign patent documents, non-patent publications, or prior filed, commonly owned, U.S. Provisional Patent Applications. Applicants further note that none of the information incorporated by reference is relied upon herein to overcome any other objection, rejection, or other requirement imposed by the United States Patent and Trademark Office. Consistent with MPEP 608.01(p)(I)(A), Applicants believe no amendment is required.

Claim Rejections - 35 USC § 112

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It was stated that Claim 18 is indefinite with respect to the terminology "Class B" filter medium. It is respectfully submitted that Claim 18 as amended now meets the requirements of 35 USC 112.

Claim Rejections - 35 USC § 102

Claims 1-4, 6-8, 11-17 and 22-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (6,344,071). This rejection is traversed in that Smith is not an anticipatory reference. Additionally, the claims are patentable and nonobvious over Smith, especially in view of the surprising results achieved by the invention.

Smith describes first and second kinds of filter media. Neither kind anticipates the present claims. The impregnants used with respect to the first kind of filter media of Smith are

described from col. 5, line 51 to col. 7, line 18. Note that the first filter medium of Smith will include a transition metal, of which tungsten is one possibility. Other than one or more transition metal impregnants, additional kinds of optional impregnants that could be used are also presented in additional lists. However, from among these various lists, Smith does not specifically teach the skilled worker to use a specific combination of impregnants that would necessarily include tungsten and the at least two other kinds of impregnants presently claimed, whether transition metal and/or otherwise.

In fact, one would have to fortuitously pick and choose from nearly two full columns of various impregnant listings of Smith in order to arrive at a tungsten-containing combination of impregnants according to the present claims. It is well settled that such fortuitous selection from among so-called "laundry lists" is not anticipation.

The working examples of Smith do not cure this deficiency. In the Smith working examples, molybdenum is illustrated, but not tungsten.

Note that the second kind of filter media does not cure the deficiency of Smith either. The second kind of filter medium is described from col. 7, line 19 to col. 10, line 2. The use of amine impregnants is described in detail. Although the second kind of filter media certainly may include other impregnants, a specific teaching to use a tungsten impregnant, with or without other impregnants, is not discussed.

Thus, at most, Smith offers a generic disclosure, but the specific species of the present claims is never shown. Smith, therefore, does not anticipate the present claims.

It is further respectfully submitted that the present claims are nonobvious over Smith. It is true that Smith suggests at col. 6, line 7 that tungsten (W) or molybdenum (Mo) for protection against gases such as cyanogen chloride and hydrogen chloride. However, such a suggestion posits that Mo and W might be substitutional equivalents in some contexts, perhaps. But, this is not the case in the context of the particular combination of at least three impregnants recited in the present claims.

As discussed in the present application, at least when W is used in particular combination with at least an impregnant having acid efficacy and another impregnant having basic efficacy, W is many fold better than Mo on a molar basis. Thus, for instance, at page 11, lines 10-15, the present application teaches that, in the context of an impregnant combination including at least W, an impregnant having an acid efficacy, and a third impregnant having a basic efficacy, the

present invention containing W is an order of magnitude better than an otherwise identical medium including only Mo in place of W:

It is a distinct advantage of tungsten-containing materials that these can provide excellent protection against desired contaminants at relatively lower molar loadings. For instance, it has been determined that filter media particles containing only about 0.001 mol tungsten/g substrate particles provide practically the same filtering efficacy against HCN as otherwise identical filter media particles containing about 0.08 mol/g of molybdenum.

Using at least some W in the claimed combination rather than merely only Mo is dramatically superior, clearly! Much less W does the same work practically as a lot more Mo on a molar basis. Nothing in Smith even remotely suggests that in the claimed combinatorial context, W will be many fold superior to Mo. Neither the broad, generic disclosure nor the laundry lists offered by Smith, in terms of suggesting impregnant possibilities, sets forth a path to the claimed invention. In addition to Smith, the skilled worker would need the benefit of fortuitous picking and choosing and/or the hindsight offered by the present claims to arrive at the subject matter of the claims.

Accordingly, it is respectfully submitted that the claims are nonobvious and patentable over Smith, and the patentability of the claims is firmly bolstered and further established by the surprising results of using W, as compared to only Mo, in the context of the claimed combination. Therefore, withdrawal of the rejection over Smith is respectfully requested.

Claim Rejections - 35 USC § 103

Claims 5 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. '071 in view of applicants' admitted prior art. This rejection is traversed in that the "admitted prior art" fails to cure the deficiencies of Smith noted above. Even if bisulfate is a known agent, Smith fails to teach or suggest the combination of a tungsten containing impregnant and bisulfate and another impregnant having efficacy against acid contaminants. This is especially

the case in view of the surprising results noted when W is used in such a combination instead of merely Mo.

Withdrawal of the rejection is respectfully requested.

Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. '071 in view of Frund (5,714,126). This rejection is traversed in that Frund fails to cure the deficiencies of Smith noted above. Even if various kinds of activated carbons are known, Smith fails to teach or suggest the combination of a tungsten containing impregnant and bisulfate and another impregnant having efficacy against acid contaminants. This is especially the case in view of the surprising results noted when W is used in such a combination instead of merely Mo.

Withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the above remarks, it is respectfully submitted that the foregoing is fully responsive to the outstanding Office Action. In the event that a phone conference between the Examiner and the Applicants' undersigned attorney would help resolve any issues in the application, the Examiner is invited to contact said attorney at (651) 275-9804.

Respectfully Submitted,

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